

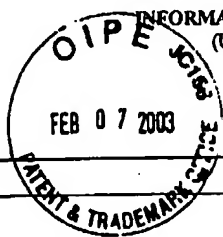
SUBSTITUTE FORM PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 07257/041001		SERIAL NO. 08/792,533 10/05/1505		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b)) FEB 07 2003 PATENT & TRADEMARK OFFICE				APPLICANT: Tsien et al.				
				FILING DATE January 31, 1997		GROUP 1801		
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL	PATENT NUMBER			ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION								
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION YES NO	
		FI WO 94/28166	8/12/94	PCT	G18Q1	37		
OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)								
		Inouye and Tsuji, "Expression of the gene and fluorescence characteristics of the recombinant protein," <i>FEBS Letters</i> 341: 277-280 (1994)						
RECEIVED FEB 10 2003 TECH CENTER 1600/2900								
EXAMINER	DATE CONSIDERED							
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

INFORMATION DISCLOSURE STATEMENT
(Use several sheets if necessary)

APPLICANT: Tsien et al.

FILING DATE:
September 13, 1999

GROUP:
1655



U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
HRC	5,614,191	03/25/97	Puri et al.	424	178.1	

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FOREIGN PATENT DOCUMENTS

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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
HRC	F1	WO 91/01305	02/07/91	PCT	—	—		
	F2	WO 95/07463	03/16/95	PCT	—	—		
	F3	WO 95/21191	08/10/95	PCT	—	—		
	F4	WO 97/11094	03/27/97	PCT	—	—		
	F5	WO 97/28261	08/07/97	PCT	—	—		

OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

HRC	D1	Ward et al., An Energy transfer protein in cocenterate bioluminescence. Characterization of the Renilla green fluorescent protein. J. Biol. Chem. 254 no 3 (1979) 781-788
	D2	Geoghegan et al., Site directed double fluorescent tagging of human renin and collagenase (MMP-1) substrate peptides using the periodate oxidation of N-terminal serine. An apparently general strategy for provision of energy transfer substrates for proteases. Bioconjugate Chemistry 4 no 6, (1993) 537-544
	D3	Wu et al. Resonance energy transfer: Methods and applications. Analytical Biochemistry 218, 1194, p1-13 Academic press Inc., Duluth, NM
	D4	Inouye and Tsuji, Expression of the gene and fluorescence characteristics of the recombinant proteins. FEBS Letters 341:277-280 (1994)
	D5	Mitra et al., Fluorescence resonance energy transfer between blue emitting and red-shifted excitation derivatives of the green fluorescent protein. Gene, 173:13-17 (1996)

EXAMINER

Aope Robinson

DATE CONSIDERED

5/24/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformation and not considered. Include a copy of this form with the next communication to applicant.

SUBSTITUTE FORM PTO-1449
(MODIFIED)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
07257/041001SERIAL NO.
08/792,553

10/057/05

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)APPLICANT:
Roger Y. Tsien et al.FILING DATE
01/31/97GROUP
1815

(37 CFR 1.98(b))

FEB 07 2003

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AK	AA	5 4 9 1 0 8 4	02/13/96	Chalfie	435	189	
	AB	5 2 6 4 5 6 3	11/23/93	Huse	536	25.3	
	AC	5 6 2 5 0 4 8	04/29/97	Tsien et al.	536	23.4	
	AD	4 3 1 4 9 3 6	02/09/82	Yaron et al.	260	112.5	
	AE	5 6 0 2 0 2 1	02/11/97	Davis et al.	435	219	
	AF	5 5 9 9 9 0 6	02/04/97	Dasmahapatra	530	350	
	AG	5 6 0 5 8 0 9	02/25/97	Komoriya et al.	435	23	

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
AK	AH	WO 94/28173	12/08/94	PCT	—	—		
	AI	WO 96/13607	05/09/96	PCT	—	—		
	AJ	WO 94/28166	12/08/94	PCT	—	—		
	AK	WO 96/23810	08/08/96	PCT	—	—		
	AL	WO 96/23898	08/08/96	PCT	—	—		
	AM	WO 96/27675	09/12/96	PCT	—	—		
	AN	WO 96/27027	09/06/96	PCT	—	—		
	AO	0 428 000 A1	05/22/91	EPO	—	—		

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

AK	AP	Cody et al., "Chemical Structure of the Hexapeptide Chromophore of the <i>Aequorea</i> Green-Fluorescent Protein", <i>Biochemistry</i> , 1993, 32, pp. 1212-1218
	AQ	Ward et al., "Reversible Denaturation of <i>Aequorea</i> Green-Fluorescent Protein: Physical Separation and Characterization of the Renatured Protein," <i>Biochemistry</i> , 1982, 21, pp. 4535-4540
	AR	Surpin et al., "Reversible Denaturation of <i>Aequorea</i> Green Fluorescent Protein-Thiol Requirement," <i>Photochem. Photobiol.</i> , 49, Abstract, 25S (1989)
	AS	Muhlrad et al., "A Rapid Method for Localized Mutagenesis of Yeast Genes," <i>Yeast</i> , 8, pp. 79-82 (1992)
	AT	Ward, "Properties of the Coelenterate Green-Fluorescent Proteins", <i>Bioluminescence and Chemiluminescence</i> , (eds. DeLuca, M.A. & McElroy, W.D.) 235-242 (Academic Press, New York 1981)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SUBSTITUTE FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
07257/041001

SERIAL NO.

08/792,353

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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APPLICANT:

Tsien et al.

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FILING DATE

01/31/97

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U.S. PATENT DOCUMENTS

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EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION						
	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication) Continued

AX	Ehrig et al., "Green-fluorescent protein mutants with altered fluorescence excitation spectra", (1995) <u>FEBS Letters</u> , 367(2) pp. 163-166
AV	Delagrave et al., "Red-Shifted Excitation Mutants of the Green Fluorescent Protein", <u>Bio/Technology</u> , 13:151-154 (1995)
AW	Kain et al., "Green Fluorescent Protein as a Reporter of Gene Expression and Protein Localization," <u>BioTechniques</u> , 19(4): pp. 650-655 (1995)
AX	Cubitt et al., "Understanding, improving and using green fluorescent proteins, <u>TIBS</u> , (1995) 20:448-455
AY	Kemp et al., "Protein kinase recognition sequence motifs," <u>Trends Biochem. Sci.</u> , 15:342-346 (1990)
AZ	Songyang et al., "Use of an oriented peptide library to determine the optimal substrates of protein kinases", <u>Current Biology</u> , 4:973-982 (1994)
BA	Colbran et al., "A Phenylalanine in Peptide Substrates Provides for Selectivity between cGMP- and cAMP-dependent Protein Kinases," <u>J. Biol. Chem.</u> , 267:9589-9594 (1992)
BB	Graff et al., "Protein Kinase C Substrate and Inhibitor Characteristics of Peptides Derived from the Myristoylated Alanine-rich C Kinase Substrate (MARCKS) Protein Phosphorylation Site Domain", <u>J. Biol. Chem.</u> , 266:14390-14398 (1991)
BC	Lee et al., "A requirement of hydrophobic and basic amino acid residues for substrate recognition by Ca ²⁺ /calmodulin-dependent protein kinase Ia," <u>Proc. Natl. Acad. Sci., USA</u> , 91:6413-6417 (1994)
BD	Stokoe et al., "The Substrate Specificity and Structure of Mitogen-Activated Protein (MAP) Kinase-Activated Protein Kinase-2", <u>Biochem. J.</u> , 296:843-849 (1993)
BE	Cheng et al., "Use of green fluorescent protein variants to monitor gene transfer and expression in mammalian cells," <u>Nature Biotechnology</u> , 14:606-609 (1996)
BF	Heim et al., "Engineering green fluorescent protein for improved brightness, longer wavelengths and fluorescence resonance energy transfer," <u>Current Biology</u> , 6(2):178-182 (1996)
BG	Yaron et al., "Intramolecularly Quenched Fluorogenic Substrates for Hydrolytic Enzymes," <u>Analytical Biochemistry</u> , 95, 228-235 1979
BH	L. Stryer, "Fluorescence Energy Transfer As A Spectroscopic Ruler," <u>Ann. Rev. Biochem.</u> , 1978, 47:819-46
BI	Ward et al., "Spectral Perturbations of the <i>Aequorea</i> Green-Fluorescent Protein, <u>Photochem. Photobiol.</u> , 1982, 35:803-808

EXAMINER

DATE CONSIDERED

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SUBSTITUTE FORM PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 07257/041001	SERIAL NO. 00792,553 101057150
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT: Tsien et al.	
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U.S. PATENT DOCUMENTS									
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		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE		CLASS	SUBCLASS	TRANSLATION	
								YES	NO
OTHER DOCUMENTS (including Author, Title, Date, Place of Publication) Continued									
BJ		Levine et al., "Isolation and Characterization of a Photoprotein, "Phialidin", and a Spectrally Unique Green-Fluorescent Protein from the Bioluminescent Jellyfish <i>Phialidium Gregarium</i> ", <u>Comp. Biochem. Physiol.</u> , 1982, 72B:77-85							
BK		Matayoshi et al., "Novel Fluorogenic Substrates for Assaying Retroviral Proteases by Resonance Energy Transfer", <u>Science</u> , 1990, 247:954							
BL		Baldwin et al., "Cloning and Expression of the luxY Gene from <i>Vibrio fischeri</i> Strain Y-1 in <i>Escherichia coli</i> and Complete Amino Acid Sequence of the Yellow Fluorescent Protein," <u>Biochemistry</u> , 1990, 29:5509-15							
BM		Blondel et al., "Engineering the quaternary structure of an exported protein with a leucine zipper," <u>Protein Engineering</u> , 1991, 4:457-461							
BN		Prasher et al., "Primary Structure of the <i>Aequorea victoria</i> green-fluorescent protein," <u>Gene</u> , 1992, 111:229-233							
BO		Tsien et al., "FRET for studying intracellular signalling," <u>Trends Cell Biol</u> , 1993, 3:242-245							
BP		Wilbanks et al., "Rod Structure of a Phycoerythrin II-containing Phycobilisome," <u>J. Biol. Chem.</u> , 1993, 268:1226-35							
BQ		Dunn et al., "Subsite Preference of Retroviral Proteinase," <u>Meth. Enzymol.</u> , 1994, 241:254							
BR		Hardy et al., "Amyloid Protein Precursor in Development, Aging, and Alzheimer's Disease," ed., C.L. Masters et al., pp. 190-198							
BS		Norris et al., "Nucleotide sequence of a cDNA clone encoding the precursor of the peridinin-chlorophyll a-binding protein from the dinoflagellate symbiodinium sp.," <u>Plant Molecular Biology</u> , 1994, 24:673-77							
BT		Krafft et al., "Synthetic approaches to continuous assays of retroviral proteases," <u>Methods Enzymol.</u> , 1994, 241:70-86							
BU		Heim et al., "Wavelength mutations and posttranslational autooxidation of green fluorescent protein," <u>Proc Natl Acad Sci, USA</u> , 1994, 91:12501-12504							
BV		Chalfie et al., "Green Fluorescent Protein as a Marker for Gene Expression," <u>Science</u> , 1994, 263:802-805							
BW		Seidah et al., "Pro-Protein Convertases of Subtilisin/Kexin Family," <u>Meth. Enzymol.</u> , 1994, 244:175							
BX		Smith et al., "Purification and Kinetic Characterization of Human Cytomegalovirus Assemblin.," <u>Meth. Enzymol.</u> , 1994, 244:412							
BY		Thornberry, "Interleukin-1 β Converting Enzyme," <u>Meth. Enzymol.</u> , 1994, 244:615							
BZ		Bovier et al., "Leishmanolysin: Surface Metalloproteinase of <i>Leishmania</i> ," <u>Meth. Enzymol.</u> , 1995, 248:614							

EXAMINER: <i>Chape Robinson</i>	DATE CONSIDERED: <i>5/24/04</i>
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

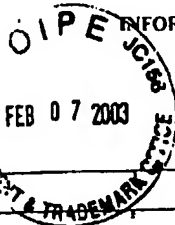
Sheet 4 of 4

SUBSTITUTE FORM PTO-1449 (MOBILITY)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 07257/041001		SERIAL NO. 08/792,333 <i>10/05/95</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)				APPLICANT: Tsien et al.			
				FILING DATE 01/31/97		GROUP 1815	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION							
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION YES NO
OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)							
✓	CA	Cubitt et al., "Understanding, improving and using green fluorescent proteins," <u>Trends Biochem Sci</u> , 1995, in press:					
	CB	Deschamps et al., "Rapid Purification of Recombinant Green Fluorescent Protein Using the Hydrophobic Properties of an HPLC Size-Exclusion Column," <u>Protein Expression and Purification</u> , 1995, 6:555-558					
	CC	Heim et al., "Improved green fluorescence," <u>Nature</u> , 1995, 373:663-664					
✓	CD	Knight, "Fluorimetric assays of proteolytic enzymes," <u>Methods Enzymol</u> , 1995, 248:18-34					
EXAMINER	<i>Hope Robinson</i>				DATE CONSIDERED <i>9/24/04</i>		
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Substitute Disclosure Form (PTO-1449)

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INFORMATION DISCLOSURE STATEMENT
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APPLICANT: Tsien et al.

FILING DATE:
January 31, 1997GROUP:
1815

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
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FOREIGN PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	FI							

OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

	DI	Guiliano et al., Fluorescent Protein Biosensors: Measurement of Molecular Dynamics in Living Cells, Annual Review of Biophysics and Biomolecular Structure, 24:405 (1995).
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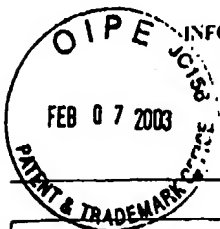
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INFORMATION DISCLOSURE STATEMENT
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APPLICANT: Tsien et al.

FILING DATE:
January 31, 1997

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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
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OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

<i>HA</i>	DI	Roth. Thesis from the Graduate Program in Biochemistry from Rutgers, the State University of New Jersey (October 1985)					
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